

# Building A Multi-State Coalition to Improve Federal CAFE Standards

**2005 Integrated Energy Report Committee**

**December 20, 2004**

**Gerry Bemis**

**Transportation Energy Division  
California Energy Commission**



## 2003 IEPR Policy

- Double fuel economy of new vehicles by 2020
- Technology allows for improvement without degrading performance
- Identify those states willing to join coalition



# 2005 Ford Escape

	Hybrid 2-Wheel Dr	Hybrid 4-Wheel Dr	V-6 4-Wheel
MSRP	\$26,380	\$28,000	\$26,555
Horsepower	155		200
Acceleration (0-60 sec)	11.3	12.0	11.8
Weight to Power Ratio	23.4	24.5	17.9
City mpg	36 (+100%)*	33 (+83%)*	18
Highway mpg	31 (+41%)*	29 (+32%)*	22
Combined mpg	33 (+65%)*	31 (+55%)*	20
Highway range (miles)	465	435	363
Curb Weight (lbs)	3,632	3,803	3,575
Passenger Volume (cu. ft.)	100.0		99.2
Cargo volume (cu. ft.)	27.6		29.3
Max.Towing Capacity (lbs.)	1,000		3,500
Length (inches)	174.9		
Width (inches)	70.1		
Height (inches)	70.4		

\* Percent improvement versus conventional V-6, 4-Wheel Drive vehicle



# 2005 Ford Escape

Which is the hybrid?



# 2005 Honda Accord

	Hybrid	V-6	I-4
MSRP	\$30,120	\$26,400	\$21,700
Horsepower	255	240	160
Acceleration (0-60 sec)	7.5	8.0	9.4
City mpg	30 (+25 to 43%)*	21	24
Highway mpg	37 (+9 to 23%)*	30	34
Combined mpg	33 (+14 to 38%)*	24	29
Highway range (miles)	633	513	580
Gross Vehicle Weight (lbs)	4,420	4,300	4,125
Passenger Volume (cu. ft.)	102.7	97.7	97.7
Trunk volume (cu. Ft.)	11.2**	14	14
Spare Tire	No***	Yes	Yes
Length (inches)	189.5		
Width (inches)	71.5		
Height (inches)	57.1		

\* Percent improvement versus conventional I-4 and V-6 vehicles respectively

\*\* Reduced to accommodate hybrid electrical components; above target of 10.0

\*\*\* Includes repair and inflation device



# 2005 Honda Accord

Which is the hybrid?



# Sample Technologies:

<u>Technology</u>	<u>Estimated Improvement (%)</u>
Cam Phasing	1 to 4
Improved Transmissions	1 to 8
Cylinder Deactivation	3 to 6
Variable Valve Lifting	4 to 6
Gasoline Direct Injection	4 to 9
Turbocharging	6 to 8
Improved Air Conditioner Compressors	7 to 10
Camless Valves	11 to 16
Advanced Diesel Engines	20 to 27
Electric Hybrid Drive Trains	29 to 54



## Alliance of Auto Manufacturers:

- A national fuel economy standard makes sense, through NHTSA
- Fuel economy should improve--balancing safety, jobs, & other factors
- Regulations should provide social benefits worth their costs
- Advances should be based on consumer demand, not regulations



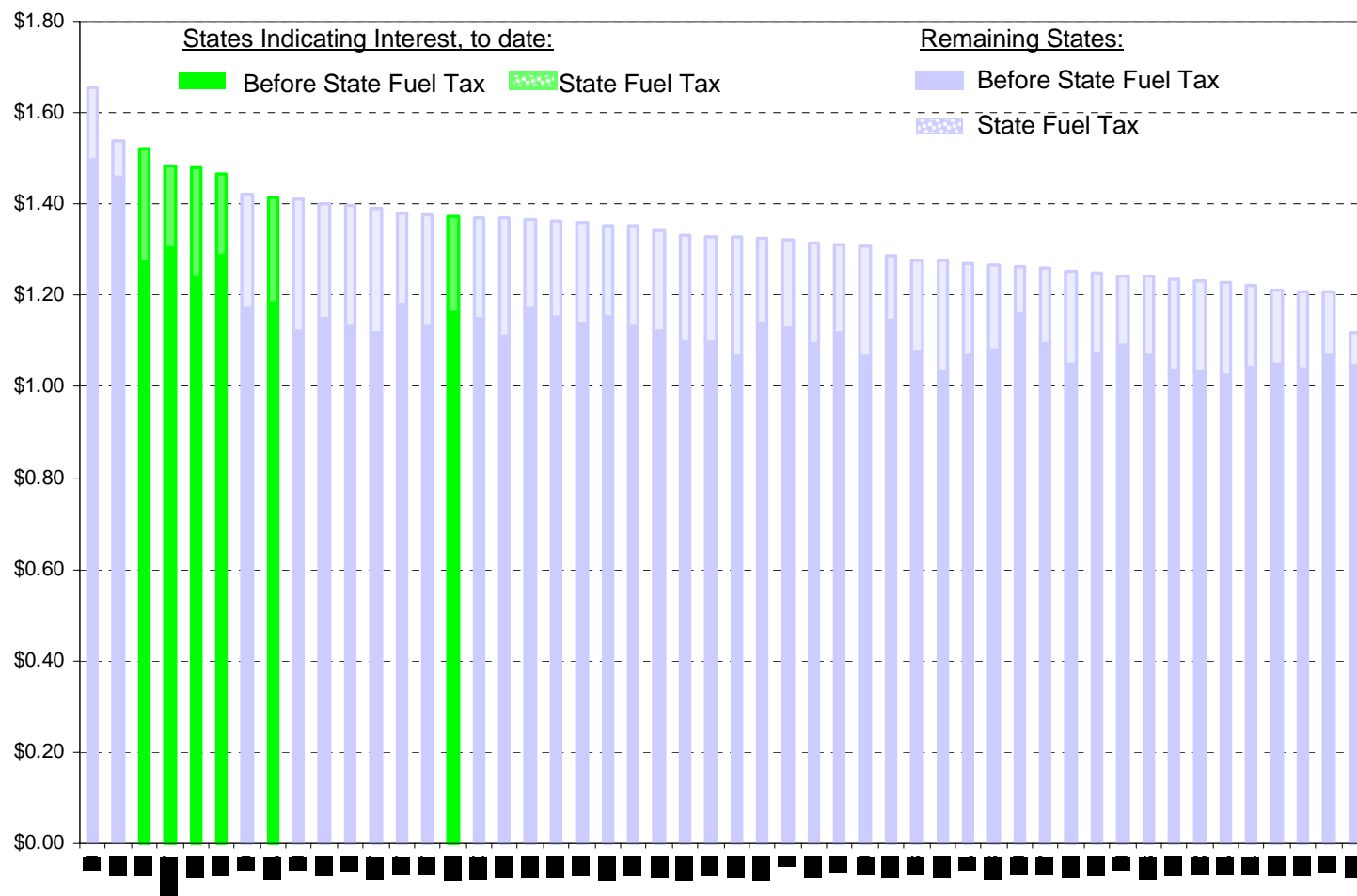


# National Commission on Energy Policy

- Significantly strengthen passenger vehicle fuel economy by 2010
- Reform CAFE to reduce costs
- Invest in highly efficient hybrid electric and advanced diesel vehicles
- Accelerate use of domestic bio-fuels



# 2003 Annual Average Fuel Prices



# States Showing Interest in Coalition:

- - States With Interest
- - State Reply Pending



12-15-04

Map Courtesy John Adamson, Texas A&M

